PATENT

ATTORNEY DOCKET: 62698.000010

Ifu

INVITED STATES PATENT AND TRADEMARK OFFICE

Application Number

10/015,939

Confirmation No.:

2933

Applicant

Prakash KADKADE

Filed

December 17, 2001

Title

CRYOPRESERVATION OF PLANT CELLS

TC/Art Unit

: 1651

Examiner:

Deborah Ware

Docket No.

62698.000010

Customer No.

21967

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.97 and 1.98, and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, applicants are submitting herewith copies of the references listed on the attached Form PTO-SB/08A (modified) for consideration and to be made of record herein by the U.S. Patent and Trademark Office in the above-captioned application.

Applicants wish to bring to the Examiner's attention the International Search Report for International Application Number PCT/US96/09998, said International Application claiming the benefit of U.S. Patent Application No. 08/486,204, filed June 07, 1995, now U.S. Patent 5,965,438, to which the instant application also claims priority in the priority chain. A copy of the International Search Report for International Application Number PCT/US96/09998 is enclosed herewith for the Examiner's consideration.

Applicants also wish to bring to the Examiner's attention co-pending U.S. Patent Application No. 08/780,449, filed January 08, 1997. A copy of the co-pending patent application is provided herewith. An indication of consideration of the co-pending application by the Examiner would be appreciated.

05/28/2004 GWORDOF1 00000036 10015939

01 FC:1806

180.00 DP

Consideration of the foregoing plus the prompt return of a copy of the enclosed Form SB/08A with the Examiner's initials in the left column in accordance with MPEP 609 are respectfully requested.

In accordance with 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being submitted after the mailing of a non-final Office Action, but is believed to be prior to a final Office Action or a Notice of Allowance. Pursuant to 37 C.F.R. § 1.97(c)(2), a check in the amount of \$180.00 as set forth in § 1.17(p) is enclosed. In the event any variance exists between the amount enclosed and the Patent Office charges, please charge or credit any difference to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: May 27, 2004

By:

Robert C. Lampe, III Registration No. 51,914

Hunton & Williams LLP Intellectual Property Department 1900 K Street, N.W. Suite 1200 Washington, DC 20006 (202) 955-1500 (telephone) (202) 778-2201 (facsimile)

RCL/sdw

PTO/SB/08A (10/01) (modified)
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
ation Number 10/015.939

No.	EN S TO LOCAL PROPERTY.
INFORMATION D	ISCLOSURE
STATEMENT BY	APPLICANT

Substitute for form 1449A/PTO

(use as many sheets as necessary)

FOREIGN PATENT DOCUMENT

Application Number	10/015,939
Filing Date	December 17, 2001
First Named Inventor	Prakash KADKADE
Art Unit	1651
Examiner Name	Deborah K. Ware
Attorney Docket Number	62698.000010

Sheet 1 of 3 Attorney Docket

	I S	PATE	NT	DOCL	JMENT	-2
_	,.U.					•

*Examiner Cite	DOCUMENT NUMBER Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
1.	US 4191555	03-04-1980	Kliegman		
2.	US 4784957	11-15-1988	Medgyesy et al.		
3.	US 5071741	12-10-1991	Brockbank		
4.	US 5674701	10-07-1997	Ecker et al.		
5.	US 5736369	04-07-1998	Bowen et al.		
6.	US 5965438	10-12-1999	Kadkade et al.		
7.	US 6127181	10-03-2000	Kadkade		
3. 4. 5. 6.	US 5071741 US 5674701 US 5736369 US 5965438	12-10-1991 10-07-1997 04-07-1998 10-12-1999	Medgyesy et al. Brockbank Ecker et al. Bowen et al. Kadkade et al.		

FOREIGN PATENT DOCUMENTS

*Examiner	r Cite No.	Country Number - Kind Cod		Publication Date		Pages, Columns, Lines,	TRANSL	ATION
Initial		Code: (if known)	(if known)	MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	YES	NO
	8.	EP	0 147 236 A2	07-03-1985	Medgyesy et al.			
·	9.	wo	96/36693	11-21-1996	Stafford et al.			
	10.	wo	96/39812	12-19-1996	Kadkade et al.			

NON-PATENT LITERATURE DOCUMENTS

	TOTAL MARKET BOOK MENTO								
*Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue							
Initials	No.	number(s), publisher, city and/or country where published	YES	NO					
	11.	PANIS et al., ""Cryopreservation of Musa Suspension Cultures and Subsequent Regeneration of Plants", CryoLetters, Vol. 11 (1990), pp. 337-350							
	12.	DUSSERT et al., Cryopreservation of Grape Embryogenic Cell Suspensions: 1-Influence of Pretreatment, Freezing and Thawing Conditions", Cryo-Letters, Vol. 12 (1991), pp. 287-298							

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO	
	ADEMAR'S
INFORMATION DISC	LOSURE

STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

3

2

Sheet

Application Number	10/015,939
Filing Date	December 17, 2001
First Named Inventor	Prakash KADKADE
Art Unit	1651
Examiner Name	Deborah K. Ware
Attorney Docket Number	62698.000010

NON-PA	TENT I	ITFR/	ATURE	DOCLIN	JENTS.
		_	11 OI IL		

		TOTAL TALENT ETTER TOTAL DOCUMENTO				
*Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		ATION		
Initials	No.			NO		
	13.	FRETZ et al., "Cryopreservation of In vitro Cultures of Barely (Hordeum vulgare L. and H. murinum L.) and Transgenic Cells of Wheat (Triticum aestivum L.)" J. Plant Physiol., Vol. 146 (1995), pp. 489-496				
	14.	SEITZ et al., "Growth and Ginenoside Patterns of Cryopreserved Panax ginseng Cell Cultures, J. Plant Physiol., Vol. 131 (1987), pp. 215-223				
	15.	XP002029641 - Advances In Low-Temperature Biology, (Cryopreservation of plant tissues by vitrification) Vol. 1, 1992, Peter L. Steponkus, Cornell University, Ithaca, N. Y.				
	XP000646623 - Vitrification of Plant Cell Suspensions, Chapter 12, pp. 113-120, 1995, P. J. Reinhoud, A Uragami, A. Sakai, F. Van Iren, Methods in Molecular Biology, Vol. 38: Cryopreservation and Freeze Drying Protocols					
	XP000646465 - Cryopreservation, Practical Approach Series, Vol. 145: Plant Cell Culture, 1994, pp. 147-167, Erica E. Benson					
	18.	FRETZ et al., "Cryopreservation of Embryogenic Suspension Cultures of Barley (Hordeum vulgare L.)", Bot. Acta, Vol. 105, (1992), pp. 140-145				
	19.	LU et al., "Cryopreservation of Millet (Setaria italica L.)", J. Plant Physiol., Vol. 139 (1992), pp. 295-298				
	20.	URAGAMI et al., "Cryopreservation of Asparagus (Asparagus officinalis L.) Cultured in vitro", JARQ, Vol. 27 (1993), pp. 112-115 REUFF et al., "Cryopreservation of Coleus blumei Suspension and Callus Cultures", J. Plant Physiol., Vol. 133 (1988), pp. 414-418				
	21.					
	22.	DUSSERT et al., "Cryopreservation of Grape Embryogenic Cell Suspensions 2: Influence of Post-Thaw Culture Conditions and Application to Different Strains", Cryo-Letters, Vol. 13, (1992), pp. 15-22	·			

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A/PTO

3

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

3

	Application Number	10/015,939
	Filing Date	December 17, 2001
	First Named Inventor	Prakash KADKADE
	Art Unit	1651
	Examiner Name	Deborah K. Ware
	Attorney Docket Number	62698.000010

NON-PATENT LITERATURE DOCUMENTS

*Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue		
Initials	No.	number(s), publisher, city and/or country where published		NO
	23.	WANG et al., Cryopreservation of Embryogenic Cell Suspensions in Festuca and Lolium Species", Plant Science, Vol. 103 (1994), pp. 93-106		
	24.	MCCLELLAN et al., "The Response of four Cultured Plant Cell Lines to Freezing and Thawing in the Presence or Absence of Cryoprotectant Mixtures", Cryo-Letters, Vol. 11 (1990), pp. 189-197		
	25.	NISHIZAWA et al., "Cryopreservation of asparagus (Asparagus officinalis L.) EmbryogenicSuspension Cells and subsequent Plant Regeneration by Vitrification", Plant Science, Vol. 91 (1993), pp. 67-73		
	26.			

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.